What is claimed is:

1. A frequency modulation (FM) recording apparatus, comprising:

an automatic gain controller equalizing a level of a frequency modulated video signal, the frequency modulated video signal having luminance and color components, the frequency modulated video signal being recorded on a recording medium;

a limiter preventing a level of the luminance components of the frequency modulated signal output from said automatic gain controller from exceeding a predetermined value;

a recording equalizer equalizing an output of said limiter in accordance with the characteristics of the recording medium;

a color low-pass filter filtering and transmitting the color component of the frequency modulated video signal output from said automatic gain controller; and

a mixer combining the luminance component output from said recording equalizer with the color component output from said color low-pass filter.

2. The frequency modulation recording apparatus of claim 1, further comprising:

a drop out detector recognizing a presence of a signal drop out in the frequency modulated signal output from said automatic gain controller;

a switch being positioned between said recording equalizer and said mixer and being controlled by said drop out detector, said switch passing the signal output from said recording

equalizer to said mixer if said drop out detector determines that a drop out does not exist and said switch passing a predetermined level signal to said mixer if the drop out detector determines the presence of a drop out.

3. The frequency modulation recording apparatus of claim 2, with the predetermined level being ground.

4. The frequency modulation recording apparatus of claim 1, further comprising a color killer being placed between said color low-pass filter and said mixer, said color killer terminating a color component if said drop out detector determines a signal drop out.

5. The frequency modulation recording apparatus of claim 4, with said color killer removing the color component when a level of color is below a predetermined value or when a monochrome image is being recorded.

6. The frequency modulation recording apparatus of claim 1, further comprising a Direct Chroma Controller (DCC) increasing a degree of amplification of said automatic gain controller on a rising part and a falling part of a reproduced frequency modulated signal.

7. The frequency modulation recording apparatus of claim 1, with said Direct Chroma

Controller comprising:

a delay unit receiving a head switching signal and delaying the head switching signal for a predetermined time; and

an exclusive OR gate performing an exclusive OR operation on the head switching signal and the delayed head switching signal output from the delay, the output from the exclusive OR gate being approved to an amplification control terminal of said automatic gain controller and the degree of amplification of said automatic gain controller being adjusted on both a rising portion and a falling portion of a head switching pulse.

8. The frequency modulation recording apparatus of claim 1, further comprising a color low pass filter separating and transmitting the color component of the frequency modulated signal output from said automatic gain controller.

9. The frequency modulation recording apparatus of claim 1, with said automatic gain controller instantaneously raising a gain of the inputted frequency modulated video signal when the inputted frequency modulated video signal is approved.

10. The frequency modulation recording apparatus of claim 1, with said direct chroma controller reducing the response time of said automatic gain controller and generating an impulse signal synchronized to a head switching pulse, said direct chroma controller generating impulse

signals coinciding with a rising and falling of the head switching pulses, the impulse signal being approved to a node controlling a degree of amplification of said automatic gain controller and instantaneously raising the amplification.

11. A frequency modulation (FM) recording apparatus, comprising:

an automatic gain controller equalizing a level of a frequency modulated video signal, the frequency modulated video signal having luminance and color components, the frequency modulated video signal being recorded on a recording medium;

a playback equalizer removing the color component by a color trap and equalizing a phase characteristics of the frequency modulated video signal outputted from said automatic gain controller;

a drop out detector recognizing a presence of a signal drop out in the frequency modulated signal output from said playback equalizer;

a limiter preventing a level of the luminance components of the frequency modulated signal output from said playback equalizer from exceeding a predetermined value;

a recording equalizer equalizing an output of said limiter in accordance with the characteristics of the recording medium;

a switch removing said limiter and said recording equalizer when said drop out detector detects a presence of the signal drop out in the frequency modulated signal;

a color low-pass filter filtering and transmitting the color component of the frequency

modulated video signal output from said automatic gain controller; and

a mixer combining the luminance component output from said recording equalizer with the color component output from said color low-pass filter, the removal of said limiter and said recording equalizer by said switch reducing a flow of noise into said mixer.

12. The apparatus of claim 11, with said switch being positioned between said recording equalizer and said mixer and being controlled by said drop out detector, said switch passing the signal output from said recording equalizer to said mixer if said drop out detector determines that a drop out does not exist and said switch passing a predetermined level signal to said mixer if the drop out detector determines the presence of a drop out.

13. The frequency modulation recording apparatus of claim 12, with the predetermined level being ground.

14. The frequency modulation recording apparatus of claim 13, further comprising a color killer being placed between said color low-pass filter and said mixer, said color killer terminating a color component if said drop out detector determines a signal drop out.

15. The frequency modulation recording apparatus of claim 14, with said color killer removing the color component when a level of color is below a predetermined value or when a

monochrome image is being recorded.

16. The frequency modulation recording apparatus of claim 15, further comprising a direct chroma controller (DCC) increasing a degree of amplification of said automatic gain controller on a rising part and a falling part of a reproduced frequency modulated signal.

17. The frequency modulation recording apparatus of claim 16, with said direct chroma controller comprising:

a delay unit receiving a head switching signal and delaying the head switching signal for a predetermined time; and

an exclusive OR gate performing an exclusive OR operation on the head switching signal and the delayed head switching signal output from the delay, the output from the exclusive OR gate being approved to an amplification control terminal of said automatic gain controller and the degree of amplification of the automatic gain controller being adjusted on both a rising portion and a falling portion of a head switching pulse.

18. The frequency modulation recording apparatus of claim 17, further comprising a color low pass filter separating and transmitting the color component of the frequency modulated signal output from said automatic gain controller.

19. The frequency modulation recording apparatus of claim 18, with said automatic gain controller instantaneously raising a gain of the inputted frequency modulated video signal when the inputted frequency modulated video signal is approved.

20. The frequency modulation recording apparatus of claim 19, with said direct chroma controller reducing the response time of said automatic gain controller and generating an impulse signal synchronized to a head switching pulse, said direct chroma controller generating impulse signals coinciding with a rising and falling of the head switching pulses, the impulse signal being approved to a node controlling a degree of amplification of said automatic gain controller and instantaneously raising the amplification.

21. A method of processing a frequency modulated (FM) signal for recording, comprising the steps of:

equalizing a level of a frequency modulated video signal by an automatic gain controller, the frequency modulated video signal having luminance and color components, the frequency modulated video signal being recorded on a recording medium, said automatic gain controller instantaneously raising a gain of the inputted frequency modulated video signal when the inputted frequency modulated video signal is approved;

removing the color component by a color trap and equalizing a phase characteristics of the frequency modulated video signal outputted from said automatic gain controller by a playback

equalizer;

recognizing a presence of a signal drop out in the frequency modulated signal output from said playback equalizer by a drop out detector;

preventing a level of the luminance components of the frequency modulated signal output from said playback equalizer from exceeding a predetermined value by a limiter;

equalizing an output of said limiter in accordance with the characteristics of the recording medium by a recording equalizer;

removing said limiter and said recording equalizer when said drop out detector detects the presence of the signal drop out in the frequency modulated signal by a switch;

filtering and transmitting the color component of the frequency modulated video signal output from said automatic gain controller by a color low-pass filter; and

combining the luminance component output from said recording equalizer with the color component output from said color low-pass filter by a mixer, the removal of said limiter and said recording equalizer by said switch reducing a flow of noise into said mixer.

22. The method of claim 21, with said switch being positioned between said recording equalizer and said mixer and being controlled by said drop out detector, said switch passing the signal output from said recording equalizer to said mixer if said drop out detector determines that a drop out does not exist and said switch passing a ground signal to said mixer if the drop out detector determines the presence of a drop out.

23. The method of claim 22, further comprising the steps of:

placing a color killer between said color low-pass filter and said mixer;

terminating by said color killer the color component of the frequency modulated video signal from said color low-pass filter if said drop out detector determines a signal drop out, said color killer removing the color component when a level of color is below a predetermined value or when a monochrome image is being recorded;

increasing a degree of amplification of said automatic gain controller on a rising part and a falling part of a reproduced frequency modulated signal by a direct chroma controller (DCC); and

a color low pass filter separating and transmitting the color component of the frequency modulated signal output from said automatic gain controller.

24. The method of claim 23, with said step of increasing the degree of amplification of said automatic gain controller by said direct chroma controller, further comprising the steps of:

receiving and delaying a head switching signal by a delay unit, said delay unit delaying the head switching signal for a predetermined time; and

performing an exclusive OR operation on the head switching signal with an exclusive OR gate and the delayed head switching signal output from the delay, the output from the exclusive OR gate being approved to an amplification control terminal of said automatic gain controller and the degree of amplification of the automatic gain controller being adjusted on both a rising portion and

a falling portion of a head switching pulse.

25. The method of claim 24, with said direct chroma controller reducing the response time of said automatic gain controller and generating an impulse signal synchronized to a head switching pulse, said direct chroma controller generating impulse signals coinciding with a rising and falling of the head switching pulses, the impulse signal being approved to a node controlling a degree of amplification of said automatic gain controller and instantaneously raising the amplification.